



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,807	11/21/2003	Yongbin Wei	000458C1	3293

23696 7590 11/21/2007
QUALCOMM INCORPORATED
5775 MOREHOUSE DR.
SAN DIEGO, CA 92121

EXAMINER	
JAIN, RAJ K	

ART UNIT	PAPER NUMBER
2616	

NOTIFICATION DATE	DELIVERY MODE
11/21/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com
kascanla@qualcomm.com
nanm@qualcomm.com

Office Action Summary

Application No.

10/719,807

Applicant(s)

WEI ET AL.

Examiner

Raj K. Jain

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-124 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,7,8,11-13 and 16-24 is/are rejected.
- 7) ☒ Claim(s) 3,5,6,9,10 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Terminal Disclaimer

The terminal disclaimer filed on October 1, 2007 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of USP 6,714,526 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Objections

Claims 1 & 7 are objected to because of the following informalities: The claims recite "adapted for" in the pre-amble, the use of term "adapted for" does not limit the scope of the claim. Appropriate correction is required.

Claim 10 is objected to because of the following informalities: The claims recite "arborescence structure", it is not clear from the specifications and/or drawings what constitutes an "arborescence structure". Clarification is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to

Art Unit: 2616

which it pertains, or with which it is most nearly connected, to make and/or use the invention. The subject claims recite "LS codes" the term is vague and indefinite, while the specification mentions LS codes, however, it is not clear from the specifications and/or drawings which codes are LS codes and how are they defined. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4, 7, 8, 11-13, 16-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Agee (USP6,512,737 B1).

Regarding claim(s) 1, 7, 8, 11, 13, 17 and 21, Agee discloses a system adapted for a wireless communications communication system supporting Large Area Synchronized-Code Division Multiple Access (LAS-CDMA) transmissions, the transmissions using LS codes for spread-spectrum modulation (Fig. 1), the apparatus comprising: means for determining a size of an interference free window (IFW) (Fig. 13, col 3 lines 19-37, Kaiser Bessel window is used to determine an interference free window);

means for determining a plurality of subsets of LS codes, each subset comprising a number of LS codes as a function of the IFW (col 4 lines 30-42; col 19 lines 40-46; Fig. 15 with two subsets separated to prevent interference); means for assigning a first of the plurality of subsets to a first portion of the system (col 19 lines 40-46, first portion is assigned say ODD); and means for assigning a second of the plurality of subsets to a second portion of the system (col 19 lines 40-46 second portion of subset is assigned say EVEN).

Further with regards to claims 7, 17 and 21, Agee discloses nulling of codes for interference cancellation (abstract, col 2 lines 62-64; col 4 lines 30-42; col 11 lines 33-40), and further Agee discloses predetermined length (Fig. 13, col 14 lines 8-25).

Regarding claim(s) 2, 20 and 24, Agee discloses means for determining a number of subsets for assigning within the system (col 4 lines 30-42; col 19 lines 40-46; Fig. 15 with two subsets separated to prevent interference); means for determining the first subset of LS codes having null cross-correlation with respect to each other; and means for determining the second subset of LS codes having null cross-correlation with respect to each other (abstract, col 2 lines 62-64; col 4 lines 30-42; col 11 lines 33-40).

Regarding claim(s) 4, 18 and 22, Agee discloses null cross correlation (abstract, col 2 lines 62-64; col 4 lines 30-42; col 11 lines 33-40).

Regarding claim(s) 12, Agee discloses delay profiles in the IFW (col 3 line 54 – col 4 line 10).

Art Unit: 2616

Regarding claim(s) 14 & 16, Agee discloses at least two subsets (Fig. 15), however one skilled in the art will appreciate that more than two subsets possible to reduce interference amongst adjacent frequencies.

Regarding claim(s) 19 and 23, Agee discloses predetermined length structuring (Fig. 13, col 14 lines 8-25).

Allowable Subject Matter

Claims 3,5,6,9,10 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raj K. Jain whose telephone number is 571-272-3145. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Raj K. Jain

/Raj K. Jain/

Art Unit 2616

November 12, 2007